

REMARKS

I. Introduction

In response to the Office Action dated August 25, 2004, Applicants have amended the claim dependency of claim 6 to depend on claim 1. Applicants have also amended claim 1 so as to further clarify the claimed subject matter. Support for these amendments can be found, for example, at page 17, line 13 to page 19, line 16. No new matter has been added.

Further, Applicants note that the Japanese Document JP-08-293591 was sent with the IDS disclosure filed on June 13, 2003, but has not yet been considered by the Examiner. Accordingly, it is respectfully requested that the foregoing document be expressly considered during the prosecution of this application, and that the document be made of record therein. **Copies of the foregoing document and the IDS disclosure are enclosed thereof for the Examiner's convenience.**

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art references.

II. The Rejection Of Claims 1-4, 6 and 8-10 Under 35 U.S.C. § 102

Claims 1-4, 6 and 8-10 are rejected under 35 U.S.C. § 102 as being anticipated by USP No. 6,512,543 to Kuroda. Applicants respectfully traverse this rejection for at least the following reasons.

Claim 1, as amended, embodies an amplifying solid-state imaging device, wherein every period during which the reset signal supply means is supplying the reset signal necessarily overlaps with a period during which the row selecting means is selecting one of the pixel rows other than the

pixel row receiving the reset signal from the reset signal supply means to perform the readout operation thereon.

In accordance with one exemplary embodiment of the present invention, whenever a reset signal for the electronic shuttering operation is supplied to an arbitrary i^{th} (where $1 \leq i \leq m$) row included in the effective pixel area, a readout operation can be performed on another row. For example, while performing resetting for the electronic shuttering operation on the m^{th} row, a readout operation can be performed on the $(m+3)^{\text{rd}}$ row. According to one aspect of the exemplary embodiment, dummy pixel rows can be provided and driven just like the other rows in the imaging section within the effective pixel area. In this manner, a reset signal for the electronic shuttering operation can be supplied to each and every row within the imaging section under the same condition. Hence, reset potentials resulting from the electronic shuttering operation can be equalized among all the pixels within the image section, and thus horizontal noise on the screen can be prevented (see, e.g., page 18, line 6 to page 19, line 16 of the specification).

In the pending rejection, it is asserted that Kuroda discloses, in Fig. 5 and col. 10, lines 24-32, that in period 61, the reset clock 81 to $(n-1)^{\text{th}}$ row overlaps with row selection 65 to n^{th} row (see, page 4 of Office Action). However, contrary to the conclusion set forth in the pending rejection, at the cited portion, Kuroda merely discloses that the row-select voltage 65 in the n^{th} row has a clock identical to the $(n-1)^{\text{th}}$ row reset clock supplied to the pixel reset transistor 80, and the row-select voltage 66 in the $(n+1)^{\text{th}}$ row has a clock identical to the n^{th} row reset clock 82 supplied to the pixel reset transistor 80. The Examiner has not addressed how the reset timing is carried out. Indeed, it would appear that the reset timing in the uppermost row of Kuroda is not specified (see, Fig. 4).

Thus, at a minimum, Kuroda fails to disclose or suggest an amplifying solid-state imaging device, wherein every period during which the reset signal supply means is supplying the reset

signal necessarily overlaps with a period during which the row selecting means is selecting one of the pixel rows other than the pixel row receiving the reset signal from the reset signal supplying means to perform the readout operation thereon, as recited by amended claim 1.

As anticipation under 35 U.S.C. § 102 requires that each element of the claim in issue be found, either expressly described or under principles of inherency, in a single prior art reference, *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 USPQ 781 (Fed. Cir. 1983), and at a minimum, Kuroda fails to disclose the foregoing claim elements, it is clear that Kuroda does not anticipate claim 1 or any of the claims dependent thereon.

III. All Dependent Claims Are Allowable Because The Independent Claims From Which They Depend Are Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also in condition for allowance.

For all of the foregoing reasons, it is submitted that claims 1-11 are patentable over the cited prior art. Accordingly, it is respectfully submitted that the rejections of claims 1-4, 6 and 8-10 under 35 U.S.C. § 102 and claims 5, 7 and 11 under 35 U.S.C. § 103 have been overcome.

IV. Conclusion

Accordingly, it is urged that the application is in condition for allowance, an indication of which is respectfully solicited.


Application No.: 09/417,097

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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